Commonwealth of Kentucky Environmental and Public Protection Cabinet Department for Environmental Protection

Division for Air Quality 803 Schenkel Lane Frankfort, Kentucky 40601 (502) 573-3382

Proposed

AIR QUALITY PERMIT Issued under 401 KAR 52:020

Permittee Name: Intertape Polymer Group

Mailing Address: 2000 Enterprise Drive, Richmond, Kentucky

40475

Source Name: Intertape Polymer Group
Mailing Address: 2000 Enterprise Drive

Richmond, Kentucky 40475

Source Location: 2000 Enterprise Drive, Richmond, Kentucky

Permit ID: V-07-012 Agency Interest #: 2827

Activity ID: APE20060001

Review Type: Title V / Synthetic Minor, Construction /

Operating

Source ID: 21-151-00052

Regional Office: Frankfort Regional Office

663 Teton Trail, Suite B Frankfort, KY 40601 (502) 564-3358

County: Madison

Application

Complete Date: August 21, 2007
Issuance Date: December 14, 2007

Revision Date:

Expiration Date: December 14, 2012

John S. Lyons, Director Division for Air Quality

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	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
V-00-041	Initial Issuance		2/9/2000	December	Initial Permit
V-07-012	Renewal	APE20050003	8/21/2007	29, 2000	Permit Renewal

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

EP01 (1-1, 1-2, 1-3, 1-4, 1-5, 1-6, SRS-1 through 8, SRS-9, SRS-10, SRS-11, 1-HM-1, 1-HM-2, 1-HM-3, 1-HM-4, and 1-HM-5)

Pressure Sensitive Tape Coating Line #1 and Supporting Facilities.

Description:

EP01 is a 60 inch wide multifunction coating line for manufacture of pressure sensitive tape with supporting mixing, extruding, and storage.

The coating line consists of the following units in the following order:

- 1st A paper or film unwind station.
- 2nd A corona treater (emission unit 1-1) that is utilized only on certain film tapes.
- 3rd A gravure release coating applicator (emission unit 1-2).
- 4th Oven #1 (emission unit 1-3) with 1 burner rated at 0.714 MM Btu/hr.
- 5th A roll coating acrylic tie coat applicator (emission unit 1-4).
- 6th Oven #2 (emission unit 1-5) with 1 burner rated at 14.2 MM Btu/hr.
- 7th A fiber reinforcing applicator.
- 8th A roll coating hot melt adhesive top coat applicator (emission unit 1-6).
- 9th A chiller cylinder.
- 10th And finally, a tape rewind station.

The ovens utilize natural gas.

The release coating applicator (emission unit 1-2) is supported by a 175 gallon mixing tank (emission unit SRS-9) and mixing room (emission unit SRS-10) with a 6.6 gallon holding tank (emission unit SRS-11) and surge pump. Emission units 1-2, SRS-9, SRS-10, SRS-11, and oven #1 (emission unit 1-3) are vented to an Amcec Model A-1874 regenerative carbon bed adsorber (emission units SRS-1 through 8) that has a designed adsorption efficiency of better than 99% (depending on actual operation, control efficiency ranges from 30% to better than 90%).

The acrylic tie coat applicator (emission unit 1-4) is uncontrolled and supported by a 10,000 gallon bulk storage tank and a spare 10,000 gallon bulk storage tank.

The hot melt adhesive applicator (emission unit 1-6) is uncontrolled. It is supported by an extruder, a 30,000 gallon storage tank (emission unit 1-HM-3), a surge tank with a 700 gallon maximum utilization (emission unit 1-HM-4), an extruder vacuum (emission unit 1-HM-1) controlled by a knockout pot, an extruder feed hopper (emission unit 1-HM-2) controlled by a baghouse, and an unload vacuum pump (emission unit 1-HM-5) controlled by a cyclone for movement of plastic resin pellets from railcar or truck into the extruder feed hopper.

The knockout pot on the extruder vacuum (emission unit 1-HM-1) has been assumed to have an overall control efficiency of 70%.

The baghouse on the extruder feed hopper (emission unit 1-HM-2) is 1,900 scfm, has reverse jet bag cleaning, and has been assumed to have an overall control efficiency of 95%.

The cyclone on the unload vacuum pump (emission unit 1-HM-5) is 240 acfm and has been assumed to have an overall control efficiency of 98%.

Construction commenced: October 1994

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP02 (2-1, 2-2, 2-3, 2-4, SRS-21 through 28, SRS-18, SRS-19, SRS-20, 2-HM-1, 2-HM-2, 2-HM-3, 2-HM-4, and 2-HM-5)

Pressure Sensitive Tape Coating Line #2 and Supporting Facilities.

Description:

EP02 is a 60 inch wide multifunction coating line for manufacture of pressure sensitive tape with supporting mixing, extruding, and storage.

The coating line consists of the following units in the following order:

- 1st A paper or film unwind station.
- 2nd A corona treater (emission unit 2-1) that is utilized only on certain film tapes.
- 3rd A gravure release coating applicator (emission unit 2-2).
- 4th Oven #1 (emission unit 2-3) with 1 burner rated at 0.714 MM Btu/hr.
- 5th A fiber reinforcing applicator.
- 6th A roll coating hot melt adhesive top coat applicator (emission unit 2-4).
- 7th A chiller cylinder.
- 8th And finally, a tape rewind station.

The ovens utilize natural gas.

The release coating applicator (emission unit 2-2) is supported by a 175 gallon mixing tank (emission unit SRS-18) and mixing room (emission unit SRS-19) with a 6.6 gallon holding tank (emission unit SRS-20) and surge pump. Emission units 2-2, SRS-18, SRS-19, SRS-20, and oven #1 (emission unit 2-3) are vented to an Amcec Model A-1874 regenerative carbon bed adsorber (emission units SRS-21 through 28) that has a designed adsorption efficiency of better than 99% (depending on actual operation, control efficiency ranges from 30% to better than 90%).

The hot melt adhesive applicator (emission unit 2-4) is uncontrolled. It is supported by an extruder, a 30,000 gallon storage tank (emission unit 2-HM-3), a surge tank with a 700 gallon maximum utilization (emission unit 2-HM-4), an extruder vacuum (emission unit 2-HM-1) controlled by a knockout pot, an extruder feed hopper (emission unit 2-HM-2) controlled by a baghouse, and an unload vacuum pump (emission unit 1-HM-5) controlled by a cyclone for movement of plastic resin pellets from railcar or truck into the extruder feed hopper.

The knockout pot on the extruder vacuum (emission unit 2-HM-1) has been assumed to have an overall control efficiency of 70%.

The baghouse on the extruder feed hopper (emission unit 2-HM-2) is 1,900 scfm, has reverse jet bag cleaning, and has been assumed to have an overall control efficiency of 95%.

The cyclone on the unload vacuum pump (emission unit 2-HM-5) is 240 acfm and has been assumed to have an overall control efficiency of 98%.

Construction commenced: Projected for 09/01/2008

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

APPLICABLE REGULATIONS:

Regulation **401 KAR 60:005**, 40 CFR Part 60 standards of performance for new stationary sources, applies to sources that are subject to regulation **40 CFR 60 Subpart RR**, Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations, and other non-applicable subparts of 40 CFR Part 60.

Regulation **401 KAR 59:210**, New fabric, vinyl and paper surface coating operations applies to each affected facility part of a major source in a county designated attainment commenced on or after June 24, 1992.

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

Regulation **40CFR Part 63, Subpart JJJJ**, National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating; applies to each new and existing (*) facility that is major source of HAP, at which web coating lines are operated. The affected source subject to this subpart is the collection of web coating lines at the source (§63.3300).

* Existing affected source means any affected source the construction or reconstruction of which is commenced on or before September 13, 2000.

Regulation **40 CFR 63 Subpart A**, General provisions applies as a result of regulation 40 CFR 63 Subpart JJJJ applicability.

1. Operating Limitations:

40 CFR Part 63, Subpart JJJJ

(a) For each coating line, 40 CFR 63.3350 (d)(2) requires installation, calibration, maintenance, and operation of a monitoring device for indicating the cumulative amount of solvent recovered by the solvent recovery device over a calendar month. And, the monitoring device shall be accurate within $\pm 2.0\%$.

401 KAR 59:210

The following is required as part of compliance with 401 KAR 59:210, however, compliance may be demonstrated through an alternative. See Section H, Alternate Operating Scenario # 1, for alternative limitation.

(b) In accordance with Sections 4(5) and 6(1) of 401 KAR 59:210, the **daily** average VOC content of coatings delivered to the applicators on the coating line shall be less than 2.9 lbs/gal, excluding water and exempt solvent.

Compliance Demonstration Method:

For each coating line, use the following equation (or equivalent) to determine compliance.

Ratio of VOCs input to the volume of coatings applied minus water and exempt solvent = VOC input / (Volume applied – water & exempt solvent) Where:

VOC input = Σ [gals of coating input to the line x VOC content (in lbs/gal) of coating]

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

and

Volume applied – water & exempt solvent =

 Σ (gals of coating input to the line - gals of coating input to the line x the water volume fraction of the coating - gals of coating input to the line x the exempt solvent volume fraction of the coating).

401 KAR 59:010

The following limit shall apply to assure compliance with Emission Limitations (b) and (c).

- (c) Emission unit 1-6, 2-4, 1-HM-1, 2-HM-1, 1-HM-2, 2-HM-2, 1-HM-5 and 2-HM-5 shall be operated and maintained consistent with manufacturer recommendations.
- (d) Pressure drop in the baghouse controlling emission unit 1-HM-2 and 2-HM-2 shall be in the range recommended by the manufacturer.

PSD Synthetic Minor Limit on VOC

(e) See Section D.

2. Emission Limitations:

40 CFR 60 Subpart RR

For each coating line, compliance with the following requirement is part of compliance with 40 CFR 60 Subpart RR, however, compliance may be demonstrated through an alternative. See Section H, Alternate Operating Scenario # 2, for alternative limitation.

(a) 40 CFR 60.442(a)(1) requires VOC emissions from the line applicators, flashoff areas, and ovens to be no more than 0.20 lbs/lb of coating solids applied on the line on a weighted average basis for each calendar month.

Compliance Demonstration Method:

There are two ways to comply with this requirement (assuming an approved alternate scenario is not utilized). One way is to use the following equations (or equivalents) and data for each month for the line to demonstrate compliance.

Ratio of VOCs input to the solids applied = VOC input / Solids applied

Where:

VOC input = Σ (lbs of coating input to the line x VOC weight fraction of coating) and

Solids applied = Σ (lbs of coating input to the line x Solids weight fraction of coating).

If the **Ratio of VOCs input to the solids applied** is ≤ 0.20 lbs of VOC/lb of coating solids applied, then compliance with the requirement has been demonstrated.

Otherwise, some degree of emission reduction will be required. Use the following equation with the above ratio to determine the minimum required emission reduction.

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Minimum required emission reduction =

(Ratio of VOCs input to the solids applied - 0.20) / Ratio of VOCs input to the solids applied x 100

If the actual VOC reductions for the month are greater than or equal to the minimum required emission reduction, then compliance with the requirement has been demonstrated.

Since the permittee is using a solvent recovery device to reduce emissions, the actual VOC reduction for each calendar month can be calculated using the following equation.

Actual VOC reduction = VOC recovered for the month / VOC input for the month x 100

401 KAR 59:010

- **(b)** Section 3(1) limits visible emissions from emission units 1-6, 2-4, 1-HM-1, 2-HM-1, 1-HM-2, 2-HM-2, 1-HM-5 and 2-HM-5 to less than 20% opacity.
- (c) Section 3(2) limits emissions of particulate matter from each flue, conduit, or duct associated with emission units 1-6, 1-HM-1, 2-HM-1, 1-HM-2, 2-HM-2, 1-HM-5 and 2-HM-5 to a maximum of 2.34 lbs/hr if the process weight rate for the emission unit is 1,000 lbs/hr or less. If the process weight rate for any of the emission units is above 1,000 lbs/hr, Section 3(2) limits emissions of particulate matter from the unit to a maximum that can be determined (in lbs/hr) by taking the process weight rate for the applicator (in tons/hr), raising the process weight rate value to the 0.62 power, and multiplying by 3.59 (maximum = 3.59 x process weight rate^{0.62}).

Compliance Demonstration Method:

Compliance with Operating Limitations (c) and (d) may be used to demonstrate compliance unless the Cabinet deems testing in accordance with 40 CFR 60 Appendix A, Method 9 or 5, necessary.

PSD Synthetic Minor Limit on VOC

(d) See Section D.

40 CFR Part 63 Subpart JJJJ

(e) See SECTION B Group Requirements.

3. Testing Requirements:

40 CFR 60 Subpart RR

The following requirements are part of compliance with 40 CFR 60 Subpart RR, however, compliance may be demonstrated through an alternative. See Section H, Alternate Operating Scenario # 2, for alternative requirements.

- (a) 40 CFR 60.444(a) requires coating lines that demonstrate compliance without consideration of any control devices to determine compliance by the procedures specified in 40 CFR 60.443(a). These procedures are described below.
 - (1) The weight fraction of VOCs and solids shall be determined for each coating applied using Reference Method 24 in Appendix A of 40 CFR 60 or by the coating manufacturer's formulation data. In the event of any inconsistency

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

between a Method 24 test and the manufacturer's formulation data, the Method 24 test shall govern, as specified in 40 CFR 60.446(a).

- (2) The ratio of VOCs input to the solids applied described in the Compliance Demonstration Method for Emission Limitations (a) shall be calculated for each calendar month.
- (3) Compliance is demonstrated if the ratio in <u>Testing Requirements (a)(2)</u> is ≤ 0.20 lbs of VOC/lb of coating solids applied.
- (b) If compliance at a coating line for a calendar month cannot be demonstrated using the above procedures, then the performance test specified in 40 CFR 60.444(b) will be conducted to demonstrate compliance for the affected coating line since a solvent recovery device is utilized by the permittee. The following steps will be required to conduct the performance test specified in 40 CFR 60.444(b).
 - (1) <u>Testing Requirements (a)(1) and (a)(2)</u> shall be used to determine the weight fraction of VOCs and solids for each coating applied and the ratio of VOCs input to the solids applied.
 - (2) The minimum required emission reduction described in the Compliance Demonstration Method for Emission Limitations (a) shall be calculated for the calendar month.
 - (3) The cumulative amount of VOC recovered for the calendar month shall be determined from the monitoring device required by Operating Limitations (a).
 - (4) The actual VOC reduction described in the Compliance Demonstration Method for Emission Limitations (a) shall be calculated for the calendar month.
 - (5) Compliance is demonstrated if the actual VOC reduction meets or exceeds the minimum required emission reduction.

401 KAR 59:210

The following is required as part of compliance with 401 KAR 59:210, however, compliance may be demonstrated through an alternative. See Section H, Alternate Operating Scenario # 1, for alternative requirements.

(c) The weight fraction of VOCs, density, and volume fraction of water and exempt solvent shall be determined for each coating applied using EPA reference methods or by the coating manufacturer's formulation data. In the event of any inconsistency between the EPA reference method test and the manufacturer's formulation data, the EPA reference method test shall govern.

40 CFR Part 63 Subpart JJJJ

- (d) The permittee is not required to conduct a performance test to demonstrate compliance because the control device is a solvent recovery system and the permittee will comply with the emissions standards in § 63.3320 (b) by means of a monthly Liquid-to-Liquid Mass Balance (LLMB). [40 CFR 63.3360 (b)]
- (e) See SECTION B Group Requirements.

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Monitoring Requirements:

40 CFR 60 Subpart RR and 401 KAR 59:210

The monitoring requirements from these regulations have been combined to denote the most stringent requirements resulting from application of the regulations. Compliance with the following requirements will demonstrate compliance with both regulations. Additional monitoring may be required if an Alternate Operating Scenario is utilized (see Section H, Alternate Operating Scenario # 1 or # 2, as warranted).

- (a) The amount of solvent recovered by the solvent recovery device shall be monitored each calendar month, as required by 40 CFR 60.445(c).
- (b) The amount and type of adhesive, coating, or solvent used (including exempt compounds) at each point of application shall be monitored daily, as required by 401 KAR 59:210 Section 4(8)(c) and 40 CFR 60.445(a).
- (c) The VOC, exempt solvent, water, and solids content (as applied) of each adhesive, coating, or solvent shall be monitored, as necessary for compliance demonstration for Operating Limitations (b) and Emission Limitations (a) and as required by 401 KAR 59:210 Section 4(8)(d) and 40 CFR 60.445(a).
- (d) The amount of surface preparation, clean-up, or wash-up solvent used daily (including exempt compounds) and the VOC content of each shall be monitored, as required by 401 KAR 59:210 Section 4(8)(f).

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations (b) and (c)

- (e) Inspect emission unit 1-HM-5 whenever operating problems are noted and routinely (at least once per month).
- (f) Monitor the pressure drop in the baghouse controlling 1-HM-2, 2-HM-2 daily as part of compliance demonstration for Operating Limitations (d).

40 CFR Part 63 Subpart JJJJ

(g) See SECTION B Group Requirements.

5. Recordkeeping Requirements:

40 CFR 60 Subpart RR and 401 KAR 59:210

The record keeping requirements from these regulations have been combined to denote the most stringent requirements resulting from application of the regulations. Compliance with the following requirements will demonstrate compliance with both regulations. Additional record keeping may be required if an Alternate Operating Scenario is utilized (see Section H, Alternate Operating Scenario # 1 or # 2, as warranted).

- (a) Monitoring Requirements (a), (b), (c), and (d) shall be recorded when monitored, as required by 401 KAR 59:210 Sections 4(8)(c), (d), and (f) and 40 CFR 60.445(a) and (c)
- (b) The amount of VOCs applied in the coatings on the line shall be calculated and recorded each calendar month, as required by 40 CFR 60.445(b).
- (c) The applicable regulation numbers shall be recorded as required by 401 KAR 59:210 Section 4(8)(a).

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (d) The application method and substrate type shall be recorded daily as required by 401 KAR 59:210 Section 4(8)(b).
- (e) The date of application for each adhesive, coating, or solvent shall be recorded as required by 401 KAR 59:210 Section 4(8)(e).
- (f) Compliance Demonstration for <u>Emission Limitations (a)</u> shall be calculated and recorded each calendar month for the coating line to comply with 40 CFR 60.447(a).
- (g) Compliance Demonstration for <u>Operating Limitations</u> (b) shall be calculated and recorded daily for the coating line to comply with 401 KAR 59:210 Section 4(8).

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations (b) and (c).

- (h) Maintenance that is part of demonstrating compliance with <u>Operating Limitations (c)</u> shall be recorded.
- (i) Observations resulting from inspection of emission unit 1-HM-5 and 2-HM-5 shall be recorded.
- (j) Record pressure drop measurements observed as a result of Monitoring Requirements (f).

PSD Synthetic Minor Limit on VOC

(k) See Section D.

40 CFR Part 63 Subpart JJJJ

(1) See SECTION B Group Requirements.

6. Reporting Requirements:

40 CFR 60 Subpart RR and 401 KAR 59:210

The reporting requirements from these regulations have been combined to denote the most stringent requirements resulting from application of the regulations. Compliance with the The following requirements will demonstrate compliance with both regulations. Additional reporting may be required if an Alternate Operating Scenario is utilized (see Section H, Alternate Operating Scenario # 1 or # 2, as warranted).

- (a) All exceedances of <u>Emission Limitation (s)</u> shall be reported quarterly. If no such exceedances occur, a report stating this shall be submitted semiannually. Reports shall include VOC usage and recovery data and results of <u>RecordKeeping Requirements (f)</u> as required by 40 CFR 60.447(a).
- (b) All exceedances of <u>Operating Limitations</u> (b) shall be reported quarterly. If no such exceedances occur, a report stating this shall be submitted semiannually. Reports shall include the coating formulation data and results of <u>RecordKeeping Requirements</u> (g) as required for compliance demonstration for 401 KAR 59:210.

401 KAR 59:010

(c) As part of compliance demonstration for Emission Limitations (b) and (c), reporting requirement 5 in Section F shall be modified to require only a summary of deviations from permit requirements related to 401 KAR 59:010. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PSD Synthetic Minor Limit on VOC

(d) See SECTION D.

40 CFR Part 63 Subpart JJJJ

(e) See SECTION B Group Requirements.

7. Control Equipment Operating Conditions:

N/A

8. Alternate Operating Scenarios:

See Section H.

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP03 (3-1, 3-2, 3-3, 3-4, and 3-5)

Pressure Sensitive Tape Coating Line #3 and Supporting Facilities.

Description:

EP03 is a 60 inch wide acrylic coating line and supporting mixing and storage for manufacture of pressure sensitive tape.

The coating line for EP03 consists of the following units in the following order:

- 1st A paper or film unwind station.
- 2nd A corona treater (emission unit 3-1).
- 3rd A gravure release coating applicator (emission unit 3-2).
- 4th Oven #1 (emission unit 3-3) with 1 burner rated at 0.8 MM Btu/hr.
- 5th A roll coating acrylic top coat applicator (emission unit 3-4).
- 6th Oven #2 (emission unit 3-5) with 3 burners, each rated at 6.0 MM Btu/hr.
- 7th A chiller cylinder.
- 8th And finally, a tape rewind station.

The acrylic tie coat applicator (emission unit 3-4) is supported by the 10,000 gallon bulk storage tank and the spare 10,000 gallon bulk storage tank that supports EP01.

Construction commenced: January 1996.

APPLICABLE REGULATIONS:

Regulation **401 KAR 60:005**, 40 CFR Part 60 standards of performance for new stationary sources, applies to sources that are subject to regulation **40 CFR 60 Subpart RR**, Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations, and other non-applicable subparts of 40 CFR Part 60.

Regulation **401 KAR 59:210**, New fabric, vinyl and paper surface coating operations applies to each affected facility part of a major source in a county designated attainment commenced on or after June 24, 1992.

Regulation **40CFR Part 63, Subpart JJJJ**, National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating; applies to each new and existing (*) facility that is major source of HAP, at which web coating lines are operated. The affected source subject to this subpart is the collection of web coating lines at the source (§63.3300).

* Existing affected source means any affected source the construction or reconstruction of which is commenced on or before September 13, 2000.

Regulation **40 CFR 63 Subpart A**, General provisions applies as a result of regulation 40 CFR 63 Subpart JJJJ applicability.

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. Operating Limitations:

401 KAR 59:210

The following is required as part of compliance with 401 KAR 59:210. Alternative compliance methods will require a control device and additional permitting action.

(a) In accordance with Sections 4(5) and 6(1) of 401 KAR 59:210, the daily average VOC content of coatings delivered to the applicators on each coating line shall be less than 2.9 lbs/gal, excluding water and exempt solvent.

Compliance Demonstration Method:

Use the following equation (or equivalent) to determine compliance.

Ratio of VOCs input to the volume of coatings applied minus water and exempt solvent = VOC input / (Volume applied – water & exempt solvent)

Where:

VOC input = Σ [gals of coating input to the line x VOC content (in lbs/gal) of coating] and

Volume applied – water & exempt solvent =

 Σ (gals of coating input to the line - gals of coating input to the line x the water volume fraction of the coating - gals of coating input to the line x the exempt solvent volume fraction of the coating).

PSD Synthetic Minor Limit on VOC

(b) See Section D.

40 CFR Part 63 Subpart JJJJ

(c) See SECTION B Group Requirements.

2. Emission Limitations:

40 CFR 60 Subpart RR

(a) The maximum input amount of solvent used on Line 3 under any operating scenario is less than 45Mg (50 tons) per 12 month period. Therefore, this affected facility (Line 3) is not subject to the emission limits of §60.442(a), however, the affected facility is subject to the requirements of all other applicable sections of this subpart. If the amount of VOC input exceeds 45 Mg (50 tons) per 12 month period, the coating line will become subject to §60.442(a) and all other sections of this subpart.

PSD Synthetic Minor Limit on VOC

(b) See Section D.

40 CFR Part 63 Subpart JJJJ

(c) See SECTION B Group Requirements.

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

40 CFR 60 Subpart RR

(a) The weight fraction of VOCs and solids shall be determined for each coating applied using Reference Method 24 in Appendix A of 40 CFR 60 or by the coating manufacturer's formulation data. In the event of any inconsistency between a Method 24 test and the manufacturer's formulation data, the Method 24 test shall govern, as specified in 40 CFR 60.446(a).

401 KAR 59:210

The following is required as part of compliance with 401 KAR 59:210, however, compliance may be demonstrated through an alternative. Other requirements are not identified in this permit since all alternatives would require utilization of a control device and additional permitting action.

(b) The weight fraction of VOCs, density, and volume fraction of water and exempt solvent shall be determined for each coating applied using EPA reference methods or by the coating manufacturer's formulation data. In the event of any inconsistency between the EPA reference method test and the manufacturer's formulation data, the EPA reference method test shall govern.

40 CFR Part 63 Subpart JJJJ

(c) See SECTION B Group Requirements.

4. Monitoring Requirements:

40 CFR 60 Subpart RR and 401 KAR 59:210

The monitoring requirements from these regulations have been combined to denote the most stringent requirements resulting from application of the regulations. Compliance with the following requirements will demonstrate compliance with both regulations.

- (a) The amount and type of adhesive, coating, or solvent used (including exempt compounds) at each point of application shall be monitored daily, as required by 401 KAR 59:210 Section 4(8)(c) and 40 CFR 60.445(a).
- (b) The VOC content (as applied) of each adhesive, coating, or solvent shall be monitored daily, as required by 401 KAR 59:210 Section 4(8)(d) and 40 CFR 60.445(a).
- (c) The amount of surface preparation, clean-up, or wash-up solvent used daily (including exempt compounds) and the VOC content of each shall be monitored, as required by 401 KAR 59:210 Section 4(8)(f).

40 CFR Part 63 Subpart JJJJ

(d) See SECTION B Group Requirements.

5. Recordkeeping Requirements:

40 CFR 60 Subpart RR and 401 KAR 59:210

The record keeping requirements from these regulations have been combined to denote the most stringent requirements resulting from application of the regulations. Compliance with the following requirements will demonstrate compliance with both regulations.

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (a) Monitoring Requirements (a), (b), and (c) shall be recorded when monitored, as required by 401 KAR 59:210 Sections 4(8)(c), (d), and (f) and 40 CFR 60.445(a).
- (b) The amount of VOC applied in the coatings utilized on each line shall be calculated and recorded for each consecutive 12 consecutive month period, as required by 40 CFR 60.445(d).
- (c) The applicable regulation numbers shall be recorded as required by 401 KAR 59:210 Section 4(8)(a).
- (d) The application method and substrate type shall be recorded daily as required by 401 KAR 59:210 Section 4(8)(b).
- (e) The date of application for each adhesive, coating, or solvent shall be recorded as required by 401 KAR 59:210 Section 4(8)(e).
- (f) Compliance Demonstration for <u>Operating Limitations (a)</u> shall be calculated and recorded daily for each coating line to comply with 401 KAR 59:210 Section 4(8).

PSD Synthetic Minor Limit on VOC

(g) See Section D.

40 CFR Part 63 Subpart JJJJ

(h) See SECTION B Group Requirements.

6. Reporting Requirements:

40 CFR 60 Subpart RR

(a) A report shall be submitted semiannually stating that 40 CFR 60.442(a) did not apply to this line because the maximum amount of solvent used on Line 3 were less than 45Mg (50 tons) per 12 consecutive month period [in accordance with 40 CFR 60.447(b)].

401 KAR 59:210

(b) All exceedances of <u>Operating Limitations</u> (a) shall be reported quarterly. If no such exceedances occur, a report stating this shall be submitted semiannually. Reports shall include the coating formulation data and results of <u>RecordKeeping Requirements</u> (f) as required for compliance demonstration for 401 KAR 59:210.

PSD Synthetic Minor Limit on VOC

(c) See Section D.

40 CFR Part 63 Subpart JJJJ

(d) See SECTION B Group Requirements.

7. Specific Control Equipment Operating Conditions:

NA

8. Alternate Operating Scenarios:

See SECTION H.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Group Requirements:

Emission Points: EP01, EP02, and EP03

Description: This section of the permit is for the implementation of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Paper and other Web Coating (POWC), 40 CFR 63 Subpart JJJJ. This regulation applies to each new and existing facility that is major source of HAP, at which web coating lines are operated. The affected source subject to this subpart is the collection of web coating lines at the source (§63.3300). Existing affected source means any affected source the construction or reconstruction of which is commenced on or before September 13, 2000.

The collection of web coating lines at the source (EP01, EP02 and EP03) represent an existing affected source. Line 1 (EP01) and Line 3 (EP03) were constructed before September 13, 2000. Although Line 2 (EP02) will be added to an existing affected source (Lines 1& 3) but since it does not trigger reconstruction as defined in 63.2, Line 2 would be an existing source.

1. **General Provisions**:

- (a) Table 2 to Subpart JJJJ specifies the provisions of subpart A of 40 CFR 63 that apply to the permitted facility, such as startup, shutdown, and malfunction plans (SSMP) in §63.6(e)(3) for affected sources using a control device to comply with the emission standards.
- (b) Operate and maintain source and control equipment consistent with good air pollution control practices. [40 CFR §63.6(e)(1)]

2. Emission Limitations:

- **40 CFR Part 63, Subpart JJJJ, § 63.3320 (b)** The permittee must limit organic HAP emissions to the level specified in paragraph 63.3320 (b)(1), (2), or (3).
- (a) No more than 5 percent of the organic HAP applied for each month (95 percent reduction) at existing affected sources; or
- (b) No more than 4 percent of the mass of coating materials applied for each month at existing affected sources; or
- (c) No more than 20 percent of the mass of coating solids applied for each month at existing affected sources.

Compliance Demonstration Method:

The permittee shall demonstrate compliance with this subpart by following the procedures in 40 CFR 63.3370.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Lines 1 & 2:

For each web coating line, the permittee has chosen to use a solvent recovery system to control emissions and will comply with 40 CFR 63.3320 (b) emissions limitations by means of a monthly liquid-liquid material balance. In addition, each web coating line has one or more never-controlled work stations. In this approach, for each coating line, the permittee needs to identify all coatings and additives used in the process and determine the organic HAP emissions for the web coating lines in accordance with 63.3370 (i)(1)(ii) through (vi), and (o):

[63.3370 (n)(1)(iii)]

- Determine the organic HAP content of each coating material as-applied during the month following the procedure in 63.3360 (c). [63.3370 (i)(1)(ii)]
- Determine the volatile organic of each coating material as-applied during the month following the procedure in 63.3360 (d). [63.3370 (i)(1)(iii)]

Note: The procedures in 63.3360 (c) and (d) are listed in <u>Group Requirements</u>, 3. <u>Testing Requirements</u> of the permit.

- Install a mass flow meter in-line with the solvent recovery system to determine and monitor the amount of the volatile organic matter recovered. [63.3370 (i)(1)(v)]
- Calculate the volatile organic matter collection and recovery efficiency using Equation 7 of 40 CFR 63.3370: [63.3370 (i)(1)(vi)]

$$R_{v} = \frac{M_{w} + M_{wret}}{\sum_{i=1}^{p} C_{wi} M_{i} + \sum_{i=1}^{q} C_{wij} M_{ij}} \times 100 \quad Eq. 7$$

Where:

 R_v = Organic volatile matter collection and recovery efficiency, percent.

 M_{vr} = Mass of volatile matter recovered in a month, lb.

 M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, lb.

The value of this term will be zero if the permittee choose not to take into account the volatile matter retained in the coated web for the compliance demonstration procedures in §63.3370.

p = Number of different coating materials applied in a month.

 C_{vi} = Volatile organic content of coating material, i, expressed as a mass fraction, lb/lb.

 M_i = Mass of as-purchased coating material, i, applied in a month, lb.

q = Number of different materials added to the coating material.

 C_{vij} = Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, lb/lb.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

 M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, lb.

- Determine the sum of the mass of all coating materials as-applied on never-controlled work stations during the month. [63.3370 (o)(1)]
- Determine the sum of the mass of all coating materials as-applied on always-controlled work stations during the month. [63.3370 (o)(2)]
- Liquid-liquid material balance *compliance demonstration*. Calculate the organic HAP emitted during the month using Equation 14 of 40 CFR 63.3370 for each control device. [63.3370 (o)(3)]

This equation sums the HAP applied while the system is controlled times the control efficiency (to get HAP emitted during controlled periods) and adds the total HAP applied (which equals HAP emitted) during uncontrolled periods. Any solvent documented as retained in web is then subtracted.

For each line (Line 1 & 2):

$$\mathbf{H}_{e} = \left[\sum_{i=1}^{P} \mathbf{M}_{Ci} \mathbf{C}_{aki}\right] \left[1 - \frac{\mathbf{R}_{v}}{100}\right] + \left[\sum_{i=1}^{P} \mathbf{M}_{Bi} \mathbf{C}_{aki}\right] - \mathbf{M}_{vret} \qquad \text{Eq. 14}$$

Where:

 H_e = Total monthly organic HAP emitted, lb.

p = Number of different coating materials applied in a month.

 M_{ci} = Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material, i, as-applied on always-controlled work stations, in a month, lb.

 C_{ahi} = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, lb/lb.

 R_v = Organic volatile matter collection and recovery efficiency, percent.

 M_{Bi} = Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material, i, as-applied on never-controlled work stations, in a month, lb.

 C_{ahi} = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, lb/lb.

 M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, lb.

The value of this term will be zero if the permittee choose not to take into account the volatile matter retained in the coated for the compliance demonstration procedures in §63.3370.

Line 3, Uncontrolled Web Coating Line:

For uncontrolled coating lines, the permittee shall determine the organic HAP applied on those web coating lines using Equation 6 (63.3370(d)).

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that coating line.

• Determine the organic HAP applied on uncontrolled web coating lines using equation 6 of 40 CFR 63.3370(d): [63.3370(n)(4)]

$$H_{m} = \sum_{i=1}^{p} C_{hi} M_{i} + \sum_{j=1}^{q} C_{hij} M_{ij} - M_{wret}$$
 Eq. 6

Where:

 H_m = Total monthly organic HAP applied, lb.

p = Number of different coating materials applied in a month.

C_{hi} = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, lb/lb.

 M_i = Mass of **as-purchased** coating material, i, applied in a month, lb.

q = Number of different materials added to the coating material.

C_{hij} = Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, lb/lb.

 M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, lb.

 M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, lb.

The value of this term will be zero if the permittee choose not to take into account the volatile matter retained in the coated for the compliance demonstration procedures in §63.3370.

Convert the information obtained above for the affected source into the units of the selected compliance option. [63.3370 (n)(5)]

• Organic HAP emitted. Calculate the cumulative organic HAP emissions (H_e) for the affected source for the month by summing all organic HAP emissions calculated: [63.3370 (n)(5)(i)]

$$H_e = H_e \text{ (Line 1)} + H_e \text{ (Line 2)} + H_m \text{ (Line 3)}$$

To demonstrate compliance with 40 CFR 63.3320 (b), each moth the permittee can choose any of the following options:

Control Option 1: Capture and control to reduce emissions to no more than the allowable limit, $\S63.3320(b)(1)$. [63.3370(e)] [63.3370(n)(6)(iv)]

• Organic HAP applied. Determine the total mass of organic HAP applied for the affected source for the month by calculating organic HAP applied according to Equation 6 of 40 CFR 63.3370(d) (see previous item for Equation 6 detail) and by summing all organic HAP applied:

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

 $H_m = H_m \text{ (Line 1)} + H_m \text{ (Line 2)} + H_m \text{ (Line 3)}$

- Determine the mass percentage of total HAP emitted.
 - O Using the value of H_e and H_m , calculate the percentage of HAP emitted for the reporting month: Percentage of HAP emitted = H_e / H_m

Option2: Capture and control to achieve mass fraction limit, 63.3320(b)(2), of coating material applied. [63.3370(g)] [63.3370(n)(5)(iv)]

- Calculate the organic HAP emission rate based on coating material applied.
 - O Gather mass data for each coating and additive used in the web coating lines process.
 - O Use the cumulative organic HAP emitted, H_e, calculated under Compliance Demonstration Method of 2. Emission Limitations.
 - O Calculate the organic HAP emission rate based on coating material applied, S, for each month using Equation 10 of 40 CFR 63.3370: [63.3370 (i)(1)(viii)]

$$S = \frac{H_e}{\sum_{i=1}^{p} M_i + \sum_{j=1}^{q} M_{ij}}$$
 Eq. 10

Where:

S = Mass organic HAP emitted per mass of material applied, lb/lb. $H_e = Total$ monthly organic HAP emitted, lb.

p = Number of different coating materials applied in a month.

 M_i = Mass of as-purchased coating material, i, applied in a month, lb.

q = Number of different materials added to the coating material.

 M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, lb.

Option 3: Capture and control to achieve mass fraction limit, $\S63.3320(b)(3)$, of solids applied. [63.3370(f)] [63.3370(f)] [63.3370(f)]

- Calculate the organic HAP emission rate based on coating solids applied.
 - O Determine the solid content of each coating material applied during the month following the procedure in 63.3360 (d).

Note: The procedure in 63.3360 (d) is listed in <u>Group Requirements</u>, 3. <u>Testing Requirements</u> of the permit.

O Use the cumulative organic HAP emitted, H_e, calculated under **Compliance Demonstration Method** of **2. Emission Limitations**.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Calculate the organic HAP emission rate based on coating solids applied, L, for each month using Equation 9 of 40 CFR 63.3370:

$$L = \frac{H_e}{\sum_{i=1}^{p} C_{si} M_i + \sum_{i=1}^{q} C_{sij} M_{ij}}$$
 Eq. 9

Where:

L = Mass organic HAP emitted per mass of coating solids applied, lb/lb

H_e = Total monthly organic HAP emitted, lb.

p = Number of different coating materials applied in a month.

 C_{si} = Coating solids content of coating material, i, expressed as a mass fraction, lb/lb.

M_i = Mass of as-purchased coating material, i, applied in a month, lb

q = Number of different materials added to the coating material.

 C_{sij} = Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, lb/lb.

 M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, lb.

Option 4: Capture and control to achieve allowable emission rate. [63.3370(h)] [63.3370(n)(6)(iii)]

- Determine allowable HAP emissions.
- Monthly organic HAP emissions ≤ Allowable HAP.
- Calculate the monthly allowable HAP emissions.
 - O Use the as-purchased mass of each coating material applied and the as-purchased coating solids content of each coating material applied each month.
 - O Determine the as-purchased mass fraction of each coating material which was applied at 20 mass percent or greater coating solids content on an as-applied basis.
 - O Determine the total mass of each solvent, diluent, thinner, or reducer added to the coating materials which were applied at less than 20 mass percent coating solids content on an as-applied basis each month.
 - o Calculate the monthly allowable organic HAP emission rate (H_a) using Equation 13a of 63.3370 for an existing affected source:

$$H_a = 0.20 \left[\sum_{i=1}^{p} M_i G_i C_{si} \right] + 0.04 \left[\sum_{i=1}^{p} M_i (1 - G_i) + \sum_{i=1}^{q} M_{L_i} \right]$$
 Eq. 13a

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Where:

 $H_a = Monthly$ allowable organic HAP emissions, lb.

p = Number of different coating materials applied in a month.

 M_i = mass of as-purchased coating material, i, applied in a month, lb.

 G_i = Mass fraction of each coating material, i, which was applied at 20 mass percent or greater coating solids content, on an asapplied basis, lb/lb.

 C_{si} = Coating solids content of coating material, i, expressed as a mass fraction, lb/lb.

q = Number of different materials added to the coating material. M_{Lj} = Mass of non-coating-solids-containing coating material, j, added to coating-solids-containing coating materials which were applied at less than 20 mass percent coating solids content, on an as-applied basis, in a month, lb.

- (4) Compliance. For existing affected source, the permittee is in compliance if:
 - Option 1: $H_e / H_m \le 0.05$, OR
 - Option 2: $S \le 0.04$ lb HAP/lb coating, OR
 - Option 3: $L \le 0.20$ lb HAP/lb Solids, OR
 - Option 4: $H_e \le H_a$

3. <u>Testing Requirements</u>:

The permittee shall use the following methods for determination of VOC, HAP, and Solids content of coating materials.

(a) "As-purchased"

(1) Volatile Organic and Coating Solids Content, § 63.3360(d)(1) or (2).

(i) Method 24

The permittee may determine the volatile organic and coating solids mass fraction of each coating applied using Method 24 (40 CFR Part 60, appendix A.) The Method 24 determination may be performed by the manufacturer of the material and the results provided.

(ii) Formulation data

The permittee may determine the volatile organic content and coating solids content of a coating material based on formulation data and may rely on volatile organic content data provided by the manufacturer of the material. In the event of any inconsistency between the formulation data and the results of Method 24 of 40 CFR part 60, appendix A, and the Method 24 results are higher, the results of Method 24 will govern.

(2) Organic HAP Content, § 63.3360(c)(1) or (2) or (3).

(i) *Method 311*

The permittee may test the coating material in accordance with Method 311 of appendix A of 40 CFR Part 63. The Method 311 determination may be performed

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

by the manufacturer of the coating material and the results provided to the permittee. The organic HAP content must be calculated according to the criteria and procedures in paragraphs (c)(1)(i) through (iii) of § 63.3360 (A through C listed below):

- (A) Include each organic HAP determined to be present at greater than or equal to 0.1 mass percent for Occupational Safety and Health Administration (OSHA) defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 mass percent for other organic HAP compounds.
- (B) Express the mass fraction of each included organic HAP according to paragraph (c)(1)(i) of § 63.3360 as a value truncated to four places after the decimal point (for example, 0.3791).
- (C) Calculate the total mass fraction of organic HAP in the tested material by summing the counted individual organic HAP mass fractions and truncating the result to three places after the decimal point (for example, 0.763).

(ii) Method 24

The permittee shall determine the volatile organic content as mass fraction of nonaqueous volatile matter and use it as a substitute for organic HAP using Method 24 of 40 CFR part 60, appendix A. The Method 24 determination may be performed by the manufacturer of the coating, § 63.3360(c)(2).

(iii) Formulation data

The permittee may use formulation data to determine the organic HAP mass fraction of a coating material. Formulation data may be provided to the permittee by the manufacturer of the material. In the event of an inconsistency between Method 311 (appendix A of 40 CFR part 63) test data and a facility's formulation data, and the Method 311 test value is higher, the Method 311 data will govern. Formulation data may be used provided that the information represents all organic HAP present at a level equal to or greater than 0.1 percent for OSHA defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used, § 63.3360(c)(3).

(3) Alternative Test Methods for Coating Materials

Authority to approve alternative test methods for organic HAP content determination, \S 63.3360(c); and for volatile matter determination, \S 63.3360(d) remains with the U.S. EPA, \S 63.3420(b).

(b) "As-applied"

If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied organic HAP, VOC or coating solid content is equal to the as-purchased organic HAP, VOC or coating solid content. Otherwise, the as-applied HAP, VOC or coating solid content must be calculated using equations of § 63.3370.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(1) Organic HAP Content, § 63.3360(c)(4)

Calculate the *average monthly*, as-applied organic HAP content of *each coating material* using Equation 1a of § 63.3370.

$$C_{ahi} = \frac{\left(C_{hi}M_{i} + \sum_{j=1}^{q} C_{hij}M_{ij}\right)}{M_{i} + \sum_{j=1}^{q} M_{ij}}$$
 Eq. 1a

Where:

 C_{ahi} = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, lb/lb.

 C_{hi} = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, lb/lb.

 M_i = Mass of as-purchased coating material, i, applied in a month, lb.

q = number of different materials added to the coating material.

Ch_{ij} = Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, lb/lb.

 M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, lb.

M_i = Mass of as-purchased coating material, i, applied in a month, lb.

(2) Volatile Organic, § 63.3360(d)(3)

Calculate the *average monthly*, as-applied volatile organic content of *each coating material* using Equation 1b of § 63.3370.

$$C_{avi} = \frac{\left(C_{vi}M_{i} + \sum_{j=1}^{q} C_{vij}M_{ij}\right)}{M_{i} + \sum_{j=1}^{q} M_{ij}}$$
 Eq. 1b

Where:

 C_{avi} = Monthly average, as-applied, volatile organic content of coating material, i, expressed as a mass fraction, lb/lb.

 C_{vi} = Volatile organic content of coating material, i, expressed as a mass fraction, lb/lb.

 M_i = Mass of as-purchased coating material, i, applied in a month, lb.

q = Number of different materials added to the coating material.

 C_{vij} = Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, lb/lb.

 M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, lb.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(3) Coating Solid Content, § 63.3360(d)(3)

Calculate the *average monthly*, as-applied volatile organic content of *each coating material* using Equation 1b of § 63.3370.

$$C_{asi} = \frac{\left(C_{si}M_{i} + \sum_{j=1}^{q} C_{sij}M_{ij}\right)}{M_{i} + \sum_{j=1}^{q} M_{ij}}$$
 Eq. 2

Where:

C_{asi} = Monthly average, as-applied, coating solids content of coating material, i, expressed as a mass fraction, lb/lb.

 C_{si} = Coating solids content of coating material, i, expressed as a mass fraction, lb/lb.

 M_i = Mass of as-purchased coating material, i, applied in a month, lb.

q = Number of different materials added to the coating material.

 C_{sij} = Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, lb/lb.

 M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, lb.

4. Monitoring Requirements:

- (a) When complying by using Liquid-to-Liquid Mass Balance (LLMB), for each solvent recovery system, the permittee must install, calibrate, maintain, and operate according to the manufacturer's specifications a device that indicates the cumulative amount of volatile applied to each coating line and recovered by the solvent recovery system on a monthly basis. The device must be certified by the manufacturer to be accurate to within ±2.0 percent by mass. [40 CFR §63.3350 (d)(2)]
- (b) Conduct daily zero and span calibration checks. [§63.8(c)(6)]
- (c) Refer to Section F for General Monitoring Requirements.

5. Recordkeeping Requirements:

- (a) The permittee shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§ 63.10(b)(1)]
- (b) The permittee shall maintain written startup, shutdown, and malfunction (SSM) plan for the source, control system, monitoring system and keep records showing consistency of actions with SSM plan. [§63.6(e)(3)(v), (iii) and §63.10(b)(2)]

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (c) The permittee shall keep records showing actions inconsistent with SSM plan. [\$63.6(e)(3)(iv)]
- (d) The permittee shall maintain written CMS (Continuous Monitoring System) control program. [§63.8(d)]
- (e) The permittee shall keep a record of data from CMS measurements, audits, calibrations, and malfunctions. [§63.10(b)(2), §63.10(c)]
- (f) The permittee shall keep records of all reports and malfunctions. [§63.10(b)]
- (g) The permittee shall maintain the following records on a monthly basis:
 - (1) Maintain all results of evaluations, maintenance and calibration performed on each mass flow meter. [§63.3410(a)(2)] and [§63.10(c)]
 - (2) Records specified in §63.10(b)(2) of all measurements needed to demonstrate compliance with this standard, including: [§63.3410(a)(1)]
 - (i) Continuous monitoring records of volatile matter recovered by the solvent recovery system. [§63.3410(a)(1)(i)]
 - (ii) Organic HAP content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(c); [§63.3410(a)(1)(iii)]
 - (iii) Volatile matter and coating solids content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(d); [§63.3410(a)(1)(iv)]
 - (iv) Material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations using these data in accordance with the requirements of \$63.3370(b), (c), and (d). [\$63.3410(a)(1)(vi)]
- (h) The permittee shall maintain records of all liquid-liquid material balances performed in accordance with the requirements of 40 CFR 63.3370. [§63.3410(b)]

6. Reporting Requirements:

- (a) The permittee must submit initial notification as required by §63.9(b) to the Administrator.
 - (1) Initial notification for existing affected sources must be submitted no later than 1 year before the compliance date of December 5, 2005 as specified in §63.3330(a).
 - (2) Initial notification for new and reconstructed affected sources must be submitted as required by §63.9(b).
 - (3) For the purpose of this subpart, a title V or part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b) and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA to implement and enforce this subpart.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (4) If the source is using a permit application in lieu of an initial notification in accordance with paragraph (b)(3) of this 40 CFR 63.3400, the permit application must be submitted by the same due date specified for the initial notification
- (b) The permittee shall submit a semiannual compliance report according to paragraphs (c)(1) and (2) of 40 CFR 63.3400.
 - The first compliance report must cover the period beginning on the compliance date that is specified for the affected source in §63.3330 and ending on June 30 or December 31, whichever date is the first date following the end of the calendar half immediately following the compliance date that is specified for your affected source in §63.3330. [§63.3400 (c)(1) (i)]
 - The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the calendar half immediately following the compliance date that is specified for your affected source in §63.3330. [§63.3400 (c)(1) (ii)]
 - Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. [§63.3400 (c)(1) (iii)]
 - Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. [§63.3400 (c)(1) (iv)]
 - Since the permitted facility is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and the Kentucky Department of Air Quality has established dates for submitting semiannual reports pursuant to \$70.6(a)(3)(iii)(A) or \$71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates shown in SECTION F of this permit instead of according to the dates in above paragraphs (1) (i) through (iv). [\$63.3400 (c)(1) (v)]
- (c) Each compliance report must contain the information in paragraphs (c)(2)(i) through (v) of 40 CFR 63.3400:
 - (1) Company name and address.
 - (2) Statement by a responsible official with that official's name, title, and signature certifying the accuracy of the content of the report.
 - (3) Date of report and beginning and ending dates of the reporting period.
 - (4) If there are no deviations from any emission limitations that apply to the source, a statement that there were no deviations from the emission limitations during the reporting period, and that no CMS was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.
 - (5) For each deviation from an emission limitation that applies to the permittee, the compliance report must contain the information in paragraphs (c)(2)(i) through (iii) of 40 CFR 63.3400, and:
 - (i) The total operating time of each affected source during the reporting period.
 - (ii) Information on the number, duration, and cause of deviations (including unknown cause), if applicable, and the corrective action taken.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (iii) Information on the number, duration, and cause for CMS downtime incidents, if applicable, other than downtime associated with zero and span and other calibration checks.
- (d) The permittee must submit startup, shutdown, and malfunction reports as specified in 40 CFR 63.10(d)(5), except that the provisions in Subpart A of 40 CFR 63 pertaining to startups, shutdowns, and malfunctions do not apply unless a control device is used to comply with this Subpart. [40 CFR 63.3400(g)]
- (e) If actions taken during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures specified in the source's SSMP required by §63.6(e)(3), the permittee must state such information in their report. The startup, shutdown, or malfunction report must consist of a letter containing the name, title, and signature of the responsible official who is certifying its accuracy and must be submitted to the a

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

SRS-1 Line 1 Toluene Storage Tank

8' (Diameter) x18' (Height), 7500 gallon

Installed: October 1994

SRS-21 Line 2 Toluene Storage Tank

8' (Diameter) x18' (Height), 7500 gallon Projected Installation Date: March 2008

Description: Included with the two (2) HAP storage tanks above are the transfer rack(s) at which organic liquids are unloaded out of transport vehicles and into the storage tanks; the transport vehicles themselves while they are unloading organic liquids at transfer racks; and equipment leak components in organic liquids service that are associated with pipelines and with storage tanks and transfer racks storing, loading, or unloading organic liquids.

APPLICABLE REGULATIONS:

40 CFR Part 63, Subpart EEEE—National Emissions Standards for Hazardous Air Pollutants: Organic Liquids Distribution; applies to the collection of activities and equipment used to distribute organic liquids into, out of, or within a facility that is a major source of HAP. The affected source is all storage tanks storing organic liquids, all transfer racks at which organic liquids are unloaded out of transport vehicles and/or containers, all transport vehicles while they are loading or unloading organic liquids at transfer racks, and all equipment leak components in organic liquids service. An affected source is a new affected source if construction commenced after April 2, 2002.

1. **Operating Limitations:** None

2. Emission Limitations: None

3. Testing Requirements: None

4. Monitoring Requirements: None

5. Recordkeeping Requirements:

(a) For each transfer rack subject to this subpart that only unload organic liquids (i.e. no organic liquids are loaded at any of the transfer racks), the permittee must keep documentation that verifies that each transfer rack is not required to be controlled. [40 CFR 63.2343(a)]

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(b) For each storage tank subject to this subpart having a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in Table 2 to this subpart, items 1 through 6, the permittee must keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies the storage tank is not required to be controlled under this subpart. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to § 63.10(b)(1), including records stored in electronic form in a separate location. [40 CFR 63.2343(b)(3)]

(c) If the permittee changes the liquids stored in such tanks, the permittee is required to make a determination as to whether or not the vapor pressure of the new liquid being stored is sufficient to require control and maintain a record of that determination, even if control is still not required.

6. Reporting Requirements:

(a) INITIAL NOTIFICATION

The permittee shall notify the Administrator in writing that the source is subject to the relevant standard, §69.9(b)(2). The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

- (1) The name and address of the owner or operator;
- (2) The address (i.e. physical location) of the affected source;
- (3) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
- (4) A brief statement of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and
- (5) A statement of whether the affected source is a major source or an area source.

(b) FIRST COMPLIANCE REPORT

- (1) The Compliance date for new source, SRS-21, that commence construction or reconstruction after February 3, 2004 is upon startup as specified in § 63.2342. The first compliance report must cover the period beginning on the compliance date and ending on June 30 or December 31, whichever date is the first date following the end of first calendar half after the compliance date, § 63.2386(b).
- (2) The compliance date for existing source, SRS-1, is no later than February 5, 2007. The first Compliance report must cover the period beginning February 5, 2007 and ending on June 30, 2007. The first Compliance report must be postmarked no later than July 31, 2007, § 63.2386(b).

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (3) The first Compliance report must contain all information specified below.
 - (i) Company name and address, \S 63.2386(c)(1).
 - (ii) Statement by a responsible official, including the official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete, § 63.2386(c)(2).
 - (iii) Date of report and beginning and ending dates of the reporting period, § 63.2386(c)(3).
 - (iv) A listing of all transfer racks (except those racks at which only unloading of organic liquids occurs) and of tanks greater than or equal to 18.9 cubic meters (5,000 gallons) that are part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart, § 63.2386(c)(10)(i).
 - (v) Include a statement that all documentation verifies that each transfer rack or storage tank is not required to be controlled has been prepared, and that this documentation is on-site and in a form suitable and readily available for expeditious inspection and review.

(c) SEMI-ANNUAL COMPLIANCE REPORT

- (1) If one or more of the events listed in A(1) through A(4) below occurred since the filing of the Notification of Compliance Status or the last Compliance report, the permittee shall submit a subsequent Compliance report, § 63.2343(d).
 - (i) Any storage tank or transfer rack became subject to control under this subpart EEEE; or
 - (ii) Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of this subpart; or
 - (iii) Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or
 - (iv) Any of the information required in (b) FIRST COMPLIANCE REPORT (3) [§ 63.2386(c)(1), (2), or (3)] has changed.
- (2) Subsequent Compliance reports must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31 and may be submitted along with the semi-annual reporting as required by Section F (5) and (6). If none of the items in A(1) through (4) occurred during the previous Compliance reporting period, the permittee is not required to submit the semi-annual compliance report.
- (3) Subsequent Compliance reports must contain the information in (b) FIRST COMPLIANCE REPORT (3) and, where applicable, the information listed below:
 - (i) A listing of any storage tank that became subject to controls based on the criteria for control specified in Table 2 to this subpart, items 1 through 6, since the filing of the last Compliance report, § 63.2386(d)(3)(i).

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SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (ii) A listing of any transfer rack that became subject to controls based on the criteria for control specified in Table 2 to this subpart, items 7 through 10, since the filing of the last Compliance report, § 63.2386(d)(3)(ii).
- (iii) A listing of tanks greater than or equal to 18.9 cubic meters (5,000 gallons) that became part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart, since the last Compliance report, § 63.2386(d)(4)(i).
- (iv) A listing of all transfer racks (except those racks at which only the unloading of organic liquids occurs) that became part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart, since the last Compliance report, § 63.2386(d)(4)(ii).
- 7. <u>Control Equipment Operating Conditions</u>: None
- **8.** Alternate Operating Scenarios: None

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP05 (8B) Indirect Heat Exchanger.

Description:

EP05 is a Clever Brooks-CB700-200 Boiler with a rated capacity of 8.37 MM Btu/hr.

Natural gas is utilized in the boiler to produce process heat.

Construction commenced: October 1994

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:015**, New indirect heat exchangers, applicable to affected facilities with a capacity of 250 million BTU per hour heat input or less commenced after August 9, 1972, limits particulate and sulfur dioxide emissions.

Regulation **401 KAR 59:005**, General provisions, provides for the establishment of monitoring requirements, performance testing requirements, and other general provisions as related to new sources effective December 1, 1982.

1. Operating Limitations:

401 KAR 59:015

To demonstrate continuous compliance with Emission Limitations (a) - (c), the following shall apply.

- (a) Only natural gas shall be burned.
- **(b)** Proper operation and maintenance shall be practiced.

PSD Synthetic Minor Limit on VOC

(c) See Section D.

2. Emission Limitations:

401 KAR 59:015

The following emission limitations will apply unless the permittee petitions the Cabinet for alternative emission limitations according to Section 3(3) of the above listed regulation.

(a) Section 4(1)(c) limits emissions of **particulate matter** to no more than 0.584 lbs / MM Btu actual heat input.

Note: The limit is determined by substituting the maximum heat input rating for all indirect heat exchangers greater than or equal to 1 MM Btu/hr heat input capacity at the source (8.37) into the following equation.

PM = 0.9634 x (total heat input capacity in MM Btu/hr)^{-0.2356}

(b) Section 4(2) limits visible emissions to a maximum of **20% opacity** except for emissions occurring during cleaning of the fire box, blowing of soot, and building of a new fire.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (i) While cleaning of the fire box or blowing of soot is being done, visible emissions are limited to a maximum of 40% opacity for not more than 6 consecutive minutes in any 60 consecutive minutes.
- (ii) There is no limit to visible emissions opacity while building a new fire provided a manufacturer recommended method is used and the manufacturer recommended time frame for bringing the boiler up to operating conditions is not exceeded.
- (c) Section 5(1)(c) limits emissions of any gas which contains **sulfur dioxide** to no more than 3.23 lbs/MM Btu actual heat input.

Note: The limit is determined by substituting the maximum heat input rating for all indirect heat exchangers greater than or equal to 1 MM Btu/hr heat input capacity at the source (8.37) into the following equation.

 $SO_2 = 7.7223 \text{ x (total heat input capacity in MM Btu/hr)}^{-0.4106}$

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9, 5, and 6, respectively.

If operated in accordance with Operating Limitations (a) and (b), compliance has already been demonstrated.

PSD Synthetic Minor Limit on VOC

- (d) See Section D.
- **3.** Testing Requirements: N/A
- 4. **Monitoring Requirements:** N/A

5. Specific Record Keeping Requirements:

401 KAR 59:015

To demonstrate compliance with Operating Limitation (a),

- (a) A record of the type of fuel burned shall be maintained.
- To demonstrate compliance with Operating Limitation (b),
- **(b)** A copy of the manufacturer's operating and maintenance specifications shall be maintained and made available to appropriate division personnel.
- (c) Any operation or maintenance that is less stringent than the manufacturer's minimum recommendation shall be recorded.
- (d) Dates and descriptions of maintenance that is part of demonstrating compliance with Operating Limitation (b) shall be recorded.

PSD Synthetic Minor Limit on VOC

(e) See Section D.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Reporting Requirements:

401 KAR 59:015

(a) As part of compliance demonstration for Emission Limitations (a) and (b), reporting requirement 5 in Section F shall be modified to require only a summary of permit deviations for this emission point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

401 KAR 59:005

(b) Section 3(1)(d) requires written notification of any physical or operational change which may increase the emission rate of any air pollutant to which a standard applies to be furnished to the Cabinet. This notice shall be postmarked 60 days before the change is commenced or as soon as practicable. The notice shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change.

PSD Synthetic Minor Limit on VOC

- (c) See Section D.
- 7. Control Equipment Operating Conditions: N/A
- **8.** Alternate Operating Scenarios: N/A

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SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to a general applicable regulation shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspections and observations shall be recorded in a log, noting color, duration, density (heavy or light), cause, and any corrective actions taken due to abnormal visible emissions.

	<u>Description</u>	Generally Applicable Regulation
1.	Maintenance Welder	401 KAR 59:010
2.	Direct Heating Units 7 @ a rated capacity of 0.094 MM Btu/hr 4 @ a rated capacity of 0.194 MM Btu/hr 1 @ a rated capacity of 0.25 MM Btu/hr 4 @ a rated capacity of 0.375 MM Btu/hr 1 @ a rated capacity of 0.65 MM Btu/hr 1 @ a rated capacity of 3.31 MM Btu/hr	None
3.	Quality Control Test Hood	None
4.	Waste Material Storage Area	None
5.	Natural Rubber Chopping Machines	None

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SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

- 1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
- 2. **PSD Synthetic Minor Limits** have voluntarily been accepted to avoid applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, requirements. Exceedance of the major source emission level, as defined in 401 KAR 51:017 will trigger additional requirements and regulations.

Emission Limitations:

Plantwide VOC synthetic minor limitation

For any 12 consecutive month period, plantwide VOC emissions shall be less than or equal to 225 tons as demonstrated on a monthly basis.

Compliance Demonstration Method:

Except for mixing tank and room the emissions, compliance can be demonstrated through a combination of mass balances and AP-42 emission estimates or division approved test results. Mixing emissions have been determined based on a combination of AP-42 emission estimate, NSPS guidance, engineering judgement, and an assumed mixing room air concentration provided by the permittee.

VOC emitted (lbs) = Σ [VOC applied on tape lines] + Σ [VOC from tanks] + Σ [VOC from mixing room] + Σ [VOC from clean-up solvents used] - Σ [VOC recovered]

Substitution into the VOC equation will result in the following equation.

VOC emitted (lbs) = lbs of VOC utilized by the tape lines
+ gals of toluene input to the 175 gal mixing tank
x emission factor for mixing tank and room
+ gross gals of toluene released from the 7,500 gal storage tank
x AP-42 derived emission factor for the 7,500 gal storage tank
+ lbs of VOC utilized in clean-up - VOC recovered

Absent test results, the following (or equivalent) shall be used in the above equation:

Lbs of VOC utilized on each tape line = direct measurement or gallons x VOC content

Emission factor for mixing tank and room = 2.8 lbs/1000 gallons input

Lbs of VOC input to release coat mixing = direct measurement

AP-42 derived emission factor for the = 0.77 lbs/1000 gallons input

7,500 gal storage tank

Gross gals of toluene released from the = direct measurement (may be identified from release coat mixing input if no other use point)

Lbs of VOC utilized in clean-up = gallons used x VOC content

VOC recovered = direct measurement of lbs recovered or gal x density

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SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Operating Limitations:

The following is required to make the above emission limits enforceable as a practical matter and compliance with this limit demonstrates compliance with the <u>Emission Limitation</u> in this Section.

Plantwide VOC synthetic minor limitation

Raw material use shall be such that VOC emitted, calculated using the above compliance demonstration method for VOC under <u>Emission Limitations</u> in Section D, from the source during any 12 consecutive month period is $\langle \mathbf{or} = \mathbf{to} \rangle$ 225 tons (demonstrated monthly).

Testing Requirements: N/A

Record Keeping Requirements:

Synthetic minor limitations require the following to be recorded monthly.

- **a.** Lbs or gallons of each adhesive, coating, solvent, or clean-up material delivered to coating lines.
- **b.** The VOC percentage (by weight) or the VOC content (in lbs/gal), as appropriate for demonstrating compliance, of each adhesive, coating, solvent, or clean-up material used.
- **c.** Lbs or gallons of toluene purchased and stored for use in coating lines.
- **d.** Lbs or gallons of toluene recovered for reuse in coating lines.
- **e.** The amount of VOC emitted each month calculated using the compliance demonstration method under <u>Emission Limitations</u> in Section D.
- **f.** The total VOC emitted for each 12 consecutive month period.

Reporting Requirements:

Synthetic minor limitations require the following to be reported semiannually. These reports shall be certified by a responsible official, and delivered by electronic media (such as fax or e-mail) or submitted no later than thirty days after the six month anniversary of permit issuance, and each six months thereafter. These reports may also be delivered by courier as long as the reports are stamped received as indicated above. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

- **a.** Any deviations from requirements in this section shall be reported.
- **b.** The VOC emission calculation shall be reported.
- c. The total VOC emission for each 12 consecutive month period ending during semiannual reporting periods shall be reported.

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SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

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SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

- 1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
- 2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit:
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b(V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

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SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- 6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
- 7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- 8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition:
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

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SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality Frankfort Regional Office 663 Teton Trail, Suite B Frankfort, KY 40601 U.S. EPA Region 4 Air Enforcement Branch Atlanta Federal Center 61 Forsyth St. Atlanta, GA 30303-8960

Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601

- 10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
- 11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

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SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].

- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- e. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

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SECTION G - GENERAL PROVISIONS (CONTINUED)

f. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

- g. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- h. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- i. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- j. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
- k. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 1. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.
- m. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].
- o. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

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SECTION G - GENERAL PROVISIONS (CONTINUED)

p. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:

- (1) Applicable requirements that are included and specifically identified in the permit and
- (2) Non-applicable requirements expressly identified in this permit.
- q. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

3. Permit Revisions

- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

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SECTION G - GENERAL PROVISIONS (CONTINUED)

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

Web Coating Line 2 and Solvent Recovery System for Line 2

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission points EP02 and SRS-3 in accordance with the terms and conditions of this permit.

- a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
- b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
 - (1) The date when construction commenced.
 - (2) The date of start-up of the affected facilities listed in this permit.
 - (3) The date when the maximum production rate specified in the permit application was achieved.
- c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- d. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
- e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration (test) on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Provisions G.4.h of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test.

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SECTION G - GENERAL PROVISIONS (CONTINUED)

f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

g. Pursuant to 401 KAR 50:045 Section 5 in order to demonstrate that a source is capable of complying with a standard at all times, a performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

5. Acid Rain Program Requirements

a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

6. Emergency Provisions

- a. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - (5) This requirement does not relieve the source of other local, state or federal notification requirements.
- b. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

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SECTION G - GENERAL PROVISIONS (CONTINUED)

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

7. Risk Management Provisions

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 1515 Lanham-Seabrook, MD 20703-1515.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

8. Ozone Depleting Substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

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SECTION H - ALTERNATE OPERATING SCENARIOS

Available to EP01 (Line 1) & EP02 (Line 2)

The alternate operating scenarios set forth below have been approved by the Division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

ALTERNATE OPERATING SCENARIO 1

Alternate Operating Scenario # 1 allows for compliance with 401 KAR 59:210 through achievement of a daily overall VOC control efficiency of at least 85% instead of line applicators delivering coatings with an average daily VOC content less than 2.9 lbs/gal, excluding water and exempt solvent. This scenario is available to EP01, Pressure Sensitive Tape Coating Line 1 & to EP02, Pressure Sensitive Tape Coating Line 2.

APPLICABLE REGULATION:

Regulation **401 KAR 59:210**, New fabric, vinyl and paper surface coating operations applies to each affected facility part of a major source in a county designated attainment commenced on or after June 24, 1992.

1. **Operating Limitations:**

401 KAR 59:210

When combined with subsequent limitations and requirements, the following limitation may be substituted for EP01 and EP02 <u>Operating Limitation (b)</u> in SECTION B of this permit as part of compliance demonstration with 401 KAR 59:210. Monitoring, record keeping, and reporting described in Section B shall still apply when using this alternative unless a substitute is noted below.

• Capture and control of VOC emissions from the line shall be such that VOC discharge into the atmosphere from all release points is no more than 15% by weight of the total VOCs input daily into the coating line (including mixing, storage, and clean-up).

Compliance Demonstration Method:

See Compliance Demonstration Method for the Emission Limitation below.

2. Emission Limitations:

401 KAR 59:210

As part of the alternative for EP01 and EP02 <u>Operating Limitations (b)</u> in SECTION B of this permit, the following emission limitation shall apply as part of compliance demonstration with 401 KAR 59:210. This limitation is in addition to the Emission Limitations in Section B for EP01 and EP02.

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SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

• Section 3 limits daily VOC discharge into the atmosphere to a maximum of 15% by weight of the total daily VOCs input into the coating line (including mixing, storage, and clean-up).

Compliance Demonstration Method:

Total VOCs input into the line over a 24-hour period shall be controlled so that no more than 15% by weight is emitted into the atmosphere. Use the following equations (or equivalents) to demonstrate weight percent of VOCs emitted.

Weight percentage of VOCs emitted = VOC emitted / VOC input x 100

Where:

VOC input = Σ (lbs of adhesive, coating, or solvent input to the line x VOC weight % of adhesive, coating, or solvent) + gals of toluene input to the 175 gal mixing tank x emission factor for mixing tank and room + gross gals of toluene released from the 7,500 gal storage tank x AP-42 derived emission factor for the 7,500 gal storage tank + Σ (lbs of cleaning solution used for the line x VOC weight % of cleaning solution)

VOC emitted = VOC input – VOC recovered

Emission factor for mixing tank and room = 2.8 lbs/1000 gallons input (absent testing)

AP-42 derived emission factor for the 7,500 gal storage tank = 0.77 lbs/1000 gross gallons released (at permit issuance)

And,

Lbs of cleaning solution used for the line =

total lbs of cleaning solution used x proportion distributed to the line.

3. Testing Requirements:

401 KAR 59:210

As part of the alternative for EP01 and EP02 <u>Operating Limitations (b)</u> in SECTION B of this permit, the following requirement shall be substituted for EP01 and EP02 <u>Testing Requirements (c)</u> as part of compliance demonstration with 401 KAR 59:210.

• The weight fraction of VOCs shall be determined for each coating applied using Reference Method 24 in Appendix A of 40 CFR 60 or by the coating manufacturer's formulation data. In the event of any inconsistency between a Method 24 test and the manufacturer's formulation data, the Method 24 test shall govern.

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SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

4. <u>Monitoring Requirements:</u>

40 CFR 60 Subpart RR and 401 KAR 59:210

As part of the alternative for EP01 and EP02 <u>Operating Limitations (b)</u> in SECTION B of this permit, the following requirement shall be substituted for EP01 and EP02 <u>Monitoring Requirement (a)</u> as part of compliance demonstration with 40 CFR 60 Subpart RR and 401 KAR 59:210.

• The amount of solvent recovered by the solvent recovery device shall be monitored daily, as required for compliance demonstration with alternative 401 KAR 59:210 Emission Limitations and by 40 CFR 60.445(c).

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SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

Available to EP01 (Line 1) & EP02 (Line 2)

Alternate Operating Scenario # 2

Alternate Operating Scenario # 2 allows for compliance with 40 CFR 60 Subpart RR through achievement of an overall VOC emission reduction of at least 90% over a calendar month instead of line applicators delivering coatings with an average monthly VOC content no greater than 0.2 lbs/lb of coating solids applied. This scenario is available to EP01, Pressure Sensitive Tape Coating Line 1 & to EP02, Pressure Sensitive Tape Coating Line 2.

APPLICABLE REGULATION:

Regulation **401 KAR 60:005**, 40 CFR Part 60 standards of performance for new stationary sources, applies to sources that are subject to regulation **40 CFR 60 Subpart RR**, Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations, and other non-applicable subparts of 40 CFR Part 60.

1. Operating Limitations: 40 CFR 60 Subpart RR

• For each coating line, 40 CFR 60.445(c) requires installation, calibration, maintenance, and operation of a monitoring device for indicating the cumulative amount of solvent recovered by the solvent recovery device over a calendar month. And, the monitoring device shall be accurate within $\pm 2.0\%$.

2. Emission Limitations:

40 CFR 60 Subpart RR

When combined with subsequent requirements, the following limitation may be substituted for EP01 and EP02 Emission Limitations (a) in SECTION B of this permit as part of compliance demonstration with 40 CFR 60 Subpart RR. The operating limitations, monitoring, record keeping, and reporting described in Section B shall still apply when using this alternative.

• 40 CFR 60.442(a)(2)(i) requires an overall VOC reduction from the line applicators, flashoff areas, and ovens of at least 90% as calculated over a calendar month.

Compliance Demonstration Method:

Total VOCs input into the line over a calendar month shall be controlled so that at least 90% by weight is not emitted into the atmosphere. Use the following equations (or equivalents) to demonstrate weight percent of VOCs recovered.

Weight percentage of VOCs recovered = mass of VOC recovered / VOC input x 100

Where:

VOC input = Σ (lbs of adhesive, coating, or solvent input to the line x VOC weight % of adhesive, coating, or solvent).

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SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

3. <u>Testing Requirements:</u>

40 CFR 60 Subpart RR

As part of the alternative for EP01 and EP02 <u>Emission Limitations (a)</u> in SECTION B of this permit, the following requirements shall be substituted for EP01 and EP02 <u>Testing Requirements (a) and (b)</u> as part of compliance demonstration with 40 CFR 60 Subpart RR.

- Determine the weight fraction of VOCs for each coating applied using Reference Method 24 in Appendix A of 40 CFR 60 or by the coating manufacturer's formulation data. In the event of any inconsistency between a Method 24 test and the manufacturer's formulation data, the Method 24 test shall govern.
- Inventory VOC usage and VOC recovery for the calendar month(s) for which this operating scenario is applicable.
- Determine the weight percentage of VOCs recovered described in the alternate Compliance Demonstration Method for <u>Emission Limitations</u>, above, for the calendar month. Compliance is demonstrated if the actual VOC recovered meets or exceeds 90%.

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SECTION I - COMPLIANCE SCHEDULE

NA